

**Amendments to the Claims:**

The claims below will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently amended) A computer implemented method for transferring data between first and second data processing applications, both of which operate on said data, said method comprising:

measuring a first data transfer metric for a first data transfer pathway between said first processing application and said second processing application;

measuring said first data transfer metric for a second data transfer pathway between said first processing application and said second processing application;

monitoring the data transfer metrics using a control software program operating on the computer that is connected to data transfer circuitry and software that controls the data transfer and determines pathway capacity;

comparing the first data transfer metric for the first pathway to the first data transfer metric for the second pathway;

selecting one of said first and second data transfer pathways for subsequent data transfers based upon the result of said comparing, and upon at least one user-specified data transfer rule;

using the data transfer metrics with at least one of the user-specified data transfer rules to control and heuristically identify an optimal data transfer pathway between the first and second processing applications; and

wherein said first and second processing applications and said first and second data transfer pathways are comprised by a single computer.

2. (Original) The method of claim 1 wherein at least one of said first and second data transfer pathways are comprised of at least one computer program.

3. (Original) The method of claim 1 wherein at least one of said first and second data transfer pathways is a physical transmission media.

4. (Canceled)

5. (Currently amended) A computer implemented method for transferring data between first and second data processors which operate on said data, said method comprising:

measuring a first data transfer metric for a first data transfer pathway between said first processor and said second processor;

measuring said first data transfer metric for a second data transfer pathway between said first processor and said second processor;

monitoring the data transfer metrics using a control software program operating on the computer that is connected to data transfer circuitry and has software that controls the data transfer and determines pathway capacity;

comparing the first data transfer metric for the first pathway to the first data transfer metric for the second pathway; and

selecting one of said first and second data transfer pathways for subsequent data transfers between said first and second processors based upon the result of said comparing, and upon at least one user-specified data transfer rule;

using the data transfer metrics with at least one of the user-specified data transfer rules to control and heuristically identify an optimal data transfer pathway between the first and second processing applications; and

wherein said first and second processors and said first and second data transfer pathways are comprised by a single computer.

6. (Original) The method of claim 5 wherein at least one of said first and second data transfer pathways are comprised of at least one computer program.

7. (Original) The method of claim 5 wherein at least one of said first and second data transfer pathways is a physical transmission media.

8-12. (Canceled)

13. (Currently amended) A computer comprising:  
a plurality of data transfer pathways through which data is transferred within said computer;  
at least first and second processors provided within said computer that are coupled to said data transfer pathways; and  
a data transfer manager provided within said computer coupled to the first and second processors and coupled to the data transfer pathways network, said data transfer manager being configured to determine data transfer metrics of a plurality of data transfer pathways and select a data transfer pathway through which subsequent data transfers will occur based upon at least one user-selected transfer attribute, wherein said data transfer manager uses the data transfer metrics with at least one of the user-specified data transfer rules to control and heuristically identify an optimal data transfer pathway between the first and second processing applications; and  
a control software program operating on the computer that is connected to data transfer circuitry for monitoring the data transfer metrics with software that controls the data transfer and determines pathway capacity.

14-15. (Canceled)

16. (Previously presented) The computer of claim 13 wherein said data transfer manager is a computer program.

17. (Canceled)

18. (Previously presented) The method of claim 1 wherein said first data transfer metric relates to at least one of error rates, buffer overflows, and under-runs.

19. (Previously presented) The method of claim 1 wherein said first data transfer metric relates to processing overhead.

20. (Previously presented) The method of claim 19 wherein said processing overhead results from at least one of encryption and compression.

21. (Previously presented) The method of claim 1 wherein said at least one user-specified data transfer rule comprises at least one of selecting the most secure pathway and the least expensive pathway.

22. (Previously presented) The method of claim 1 wherein said at least one user-specified data transfer rule comprises selecting the least expensive pathway for very large data transfers and the fastest pathway for sensitive data transfers.

23. (Canceled)

24. (Previously presented) The method of claim 5 wherein said first data transfer metric relates to at least one of error rates, buffer overflows, and under-runs.

25. (Previously presented) The method of claim 5 wherein said first data transfer metric relates to processing overhead.

26. (Previously presented) The method of claim 25 wherein said processing overhead results from at least one of encryption and compression.

27. (Previously presented) The method of claim 5 wherein said at least one user-specified data transfer rule comprises at least one of selecting the most secure pathway and the least expensive pathway.

28. (Previously presented) The method of claim 5 wherein said at least one user-specified data transfer rule comprises selecting the least expensive pathway for very large data transfers and the fastest pathway for sensitive data transfers.

29. (Canceled)

30. (Previously presented) The computer of claim ~~29~~ 13 wherein said data transfer metrics include processing overhead.

31. (Previously presented) The computer of claim 30 wherein said processing overhead results from at least one of encryption and compression.

32. (Previously presented) The computer of claim 13 wherein said at least one user-selected transfer attribute comprises at least one of selecting the most secure pathway and the least expensive pathway.

33. (Previously presented) The computer of claim 13 wherein said at least one user-selected transfer attribute comprises selecting the least expensive pathway for very large data transfers and the fastest pathway for sensitive data transfers.